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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/098,681	03/14/2002	Makoto Watanabe	X2278.0037/P001	5149

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10/06/2003

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EXAMINER

CHUNG, DAVID Y

ART UNIT

PAPER NUMBER

2871

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Applicati n N .

10/098,681

Applicant(s)

WATANABE ET AL.

Examin r

David Y. Chung

Art Unit

2871

-- The MAILING DATE of this communication appears n the cover sheet with the corresp ndenc address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_ .
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,9,11,13 and 15 is/are rejected.
- 7) ☒ Claim(s) 2,4,6,8,10,12,14 and 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_ .
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_ .
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_ .

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**1. Claims 1, 3, 5, 7, 9, 11, 13 and 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Katsu et al. (U.S. 6,597,427) in further view of Lee et al. (U.S. 6,512,565).**

As to claims 1, 5, 9 and 13, Katsu et al. discloses a liquid crystal display panel having identification marks formed in the pixel region for specifying the position of defective pixels. Note in figure 4, the gate lines 48 and data lines 46 formed on the TFT array substrate. The address marks 50 are provided by forming a bar code made of silver on the gate lines, data lines, or display electrodes. Since the address marks are formed directly on the gate lines, data lines, or display electrodes, they are interpreted as being connected to one of these elements. See column 2, lines 48-58. Each pixel is connected to a corresponding gate and data line via a thin film transistor 45.

Katsu et al. does not disclose common electrode lines formed on the TFT array substrate. Lee et al. discloses a common electrode line for transmitting common

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signals to the counter electrode in an IPS type display device. See figure 4 and column 7, lines 5-10. IPS type display devices were well known for their fast response, making them particularly well suited for displaying moving images. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to provide common electrode lines in order to form an IPS type display device. Katsu et al. teaches that the address marks can be formed on display electrodes. See column 2, lines 53-58. Common electrodes can be considered display electrodes, as they are used for display purposes. Since common electrode lines and common electrodes are part of the same structure in an IPS display, the address marks formed on the common electrodes can be construed as being formed on the common electrode lines also.

As to claims 3, 7, 11 and 15, because the address marks are formed directly on the gate lines, the gate insulating layer covering the gate lines would also cover the address marks.

### ***Allowable Subject Matter***

Claims 2, 4, 6, 8, 10, 12, 14 and 16 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.


The following is a statement of reasons for the indication of allowable subject matter: the prior art of Katsu et al., relied on by the examiner, did not teach providing

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each of the address marks at an end of the gate, data, or common electrode lines but instead taught forming them through out the pixel region. Katsu et al. also did not teach forming the address marks from the same material as the gate or data lines, but instead specifically taught forming them from different material.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Chung whose telephone number is (703) 306-0155. The examiner can normally be reached on Monday-Friday from 8:30 am to 5:00 pm.

  
ROBERT H. KIM  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800

David Chung  
GAU 2871  
09/22/03